WATER IN THE GREEN ECONOMY IN PRACTICE: TOWARDS RIO+20

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Water Management, Direct Regulation and Economic Instruments: The Colombian Case

Guillermo Rudas – **g.rudas@etb-net.co**

Foro Nacional Ambiental

fna foro nacional ambiental

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Summary

Colombia

35 years working in the construction of instruments for water management:

- Regulatory controls of quality and quantity.
- Price signals to encourage efficient use of the resource.
- Obligatory investments to protect water resources.

Context, strengths and limitations of different instruments of water and watersheds management.

1. Water: a public good

By Constitution and law, the Colombian water is inalienable, imprescriptible, and unseizable

2. Planning and command and control

a. ***River basin management plan.*** Natural resources diagnosis, protected areas delineation, and investment plan.

b. ***Right to the use of water (concessions).*** Environmental authority: autonomous regional corporations or national park system.

c. ***Dumping authorizations.*** Regional environmental authority.

3. Economic instruments

a. Charges for water use

- Charging fee for use of water. Fees for quantity of water with concession, not for effective use (since 1974).
- Power generation. Charges for water are paid proportionally to value of energy.

b. Tax for water pollution

- Who poured pollutants into a body of water or sewage must pay for pollution (since 1974).
- Fees are defined according to pollution reduction targets.

c. Tax incentives for efficient use

- Investments in water resources protection: VAT exclusion.
- Save and conserve water: Income tax deductions.

4. Financial instruments

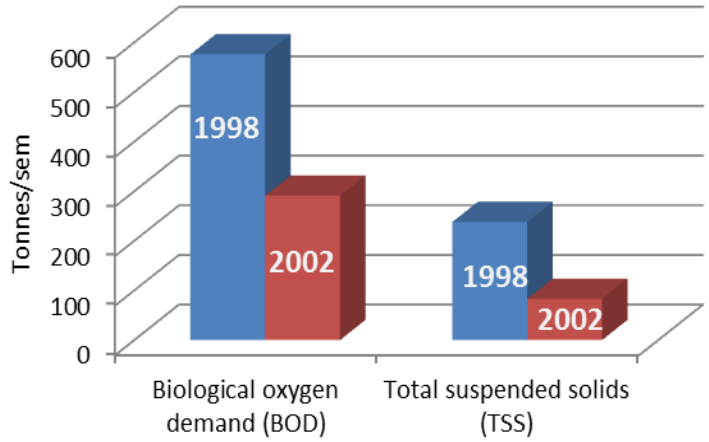
- Resources to water authorities:
  - 15% to 25% of property tax;
  - 3% of energy value;
  - royalties for extraction of non renewable resources; and
  - charges for use and pollution water (double benefit: price signal to efficient use, and source of financial resources).
- Territorial administrations. Compulsory investment in watersheds and payment for environmental services (1% of own income).
- Projects that use water. Direct investment in basin protection (1%).

5. Impacts of pollution tax

1997: Restructuring of pollution rates

Rio Negro Basin (Antioquia)

Industrial pollution, 1998-2002

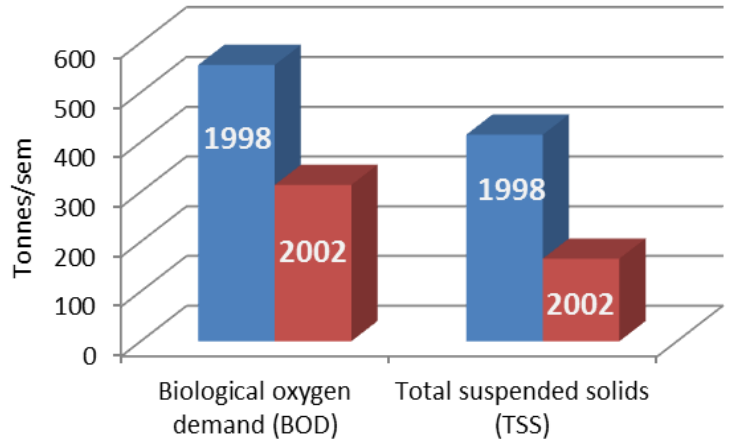


Δ water pollution 1998-2002
BOD ↓ 49% / TSS ↓ 65%

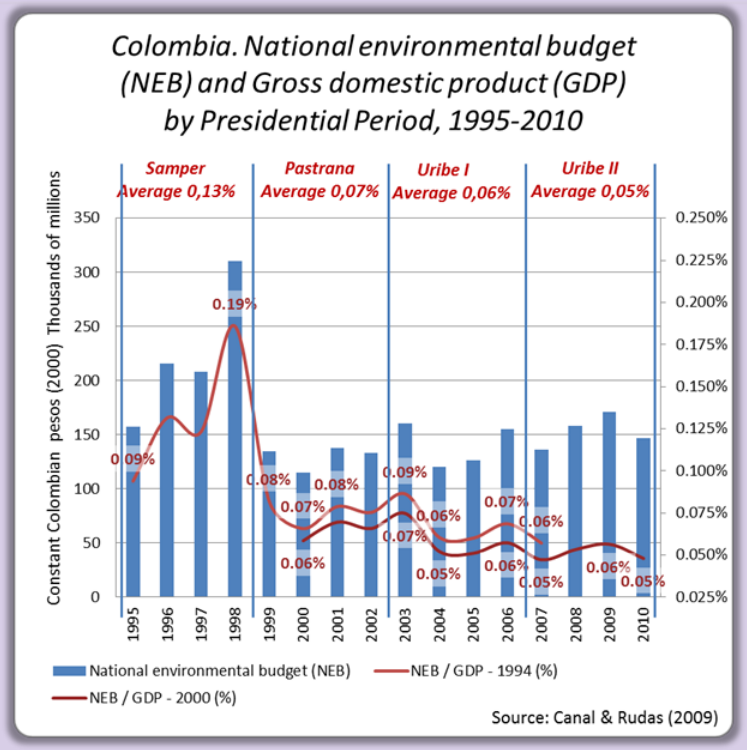
Δ water pollution 1998-2002
BOD ↓ 43% / TSS ↓ 60%

Bucaramanga City

Industrial pollution, 1998-2002

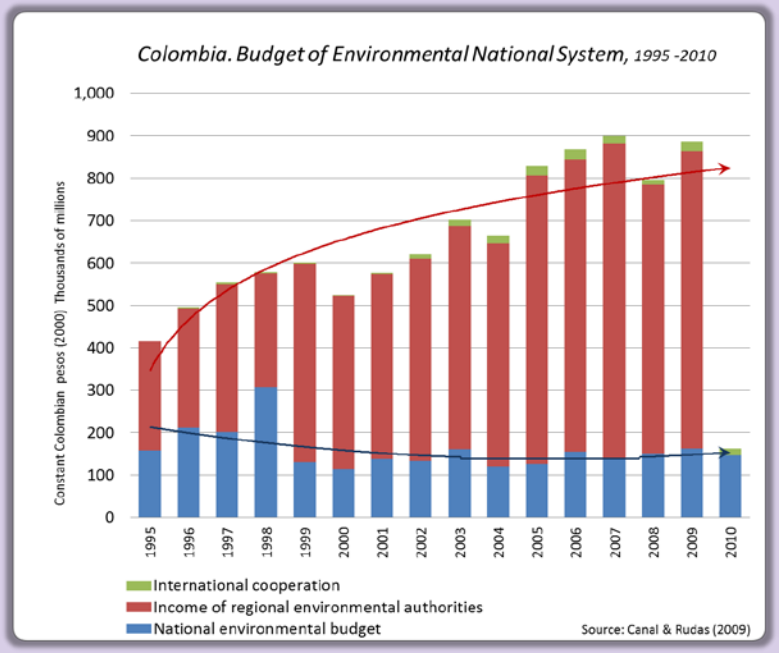


6. Financial sustainability of water management



Environmental priority of National Government (↓)

National environmental budget / GDP :
(1995-1998) = 0.13%
(2007-2010) = 0.05%



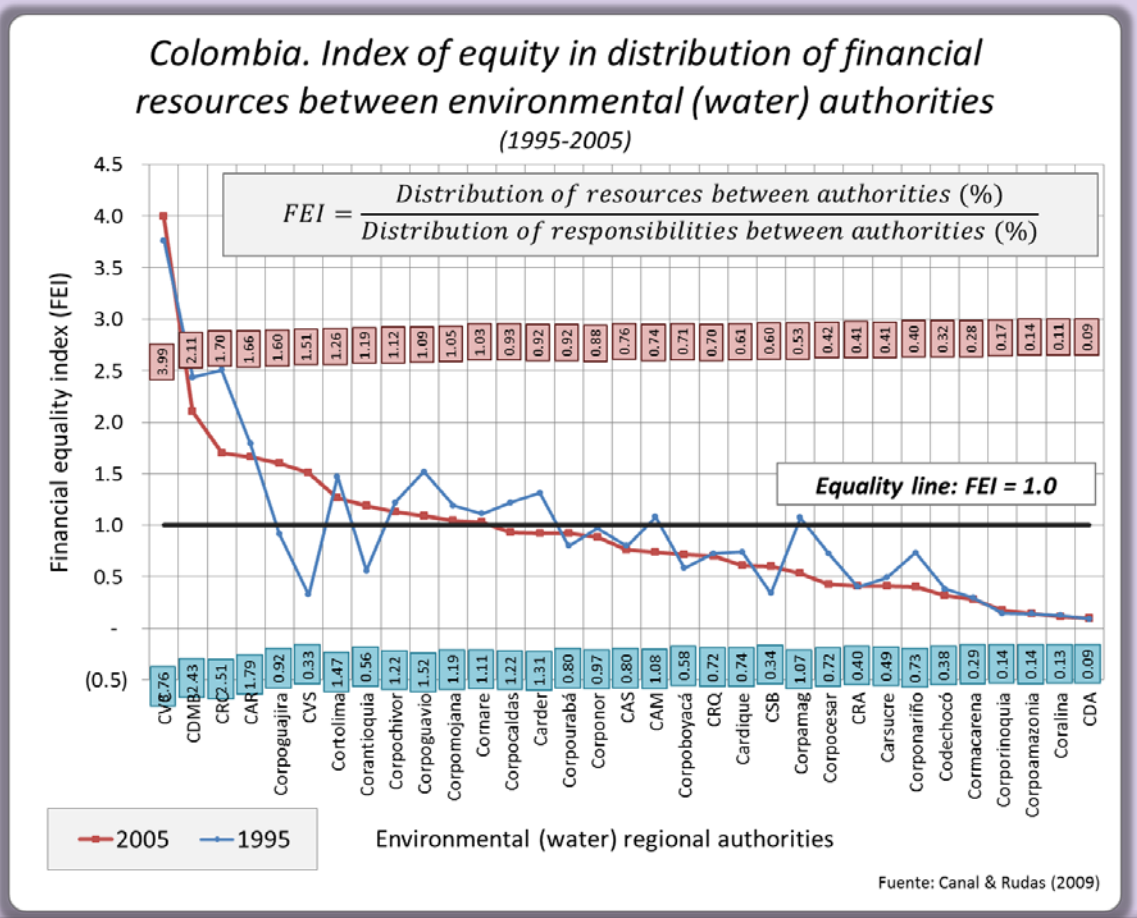
Sustained growth of regional environmental (water) authorities

7. Main obstacles of water management

1. Obstacles by institutional weakness

- Emphasis on investment tasks / Weakness in regulatory functions.
- Risks of corruption in water authorities.
- Weak monitoring of control entities, and citizens.

Unequal distribution of financial resources between regional authorities



7. Main obstacles of water management

2. Obstacles to command and control instruments

- Weak monitoring and evaluation of concessions, and of pollutant spills.

3. Obstacles to water use charges

- Irrelevant level of rates: US$ 0.40 per 1,000 cubic meter of water (mainly by lobby of rice producers)
- Complex calculation system of rates and values.

4. Obstacles to pollution taxes

- Fees in proportion to flow of water, without monitoring pollution.
- Weak monitoring of pollution goals.
- Lack of coordination between direct regulation and charge for pollution.
- Poor articulation between pollution fees and tariff of water service .

Conclusions

- Evidence of appropriateness of combining command and control, price signals, and financial instruments in water management.
- Rates must be consistent with objectives of economic growth, but maintaining positive effect of *polluter pays principle.*
- Financial sustainability of authorities is necessary, but not sufficient, to ensure effectiveness of water management.
- As well as supervision and control of water users is necessary, also an appropriate monitoring of water authorities by the control entities and the citizenship is essential.

References

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National Park Chingaza, Colombia
Photo: Guillermo Rudas

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